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From: Werner, Lora
Sent: Mon 2/24/2014 8:07:56 PM
Subject: note an NSF funded researcher will be looking at MCHM and showering modeling...

Note, one of the NSF emergency funded researchers is looking explicitly at running showering models related to MCHM.

“1. The chemical-physical properties of 4-methyl-cyclohexane methanol (MCHM) have not all been evaluated and they are necessary to determine the fate and transport within the drinking water treatment, distribution system (for example, consumers homes), and natural waters. The first stage of this research will be to quantify the chemical properties of MCHM. Specifically: the octanol-water partition coefficient (K_{ow}) will be generated using C18 HPLC retention time; the aqueous solubility (S) will be measured by saturating water with MCHM and measuring the aqueous concentration; and the Henry's Law constant (H) will be measured using static headspace equilibrium and SPME-GC/MS.

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3. MCHM has a low aqueous odor threshold of approximately 0.00001 mg/L. Thus consumers can potentially become important monitoring sentinels for exposure to low levels of MCHM. The main location in the house to detect off-odors is the shower because of high water temperatures and water flows in a confined area. Using previous modeling work by the researchers and the measured Henry's Law constants from stage 1 above, dynamic models of MCHM air concentrations for typical showering conditions will be developed. This will confirm if consumer sensory detection can aid in detecting locations of residual MCHM. It will also aid in the utility's understanding of consumer complaints, and in the longer term will aid in exposure assessment through inhalation.”

http://www.nsf.gov/awardsearch/showAward?AWD_ID=1424234&HistoricalAwards=false

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